

**COFFEE ZONE RECONSTRUCTION PROGRAM
PROJECT USAID No. 527-C-00-00035-00**

FINAL REPORT ON ACTIVITIES AND RESULTS

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FINAL REPORT

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GENERAL REVIEW

Purpose of the Program

A surface earthquake of a magnitude of M1 6.2 occurred in Colombia January 1999. Its epicenter was in Quindío Department, and it seriously affected the area known as the Colombian Coffee Zone; over 37,000 families were left homeless, more than 1,000 people died and 3,500 were injured.

Through USAID, the United States Government allocated the sum of US\$9,500,000, defining a "Limited Scope Grant Agreement" for the implementation of a reconstruction program to aid the victims of the earthquake in the area known as the Coffee Zone. The principal objective of the emergency aid to be provided by USAID was: 1) to support the local institutions in providing housing and basic infrastructure services to the low income victims of the earthquake; 2) to provide sustainable mitigation models, which required the participation of both public and private sectors, also as a sustainable financial investment model.

PADCO Inc. was contracted by USAID to design and implement the aid program in the field, which was to be targeted to the poorest victims of the earthquake, and who were renting accommodations when the disaster occurred.

Results Expected.

Initially, USAID had hoped to build approximately 1,000 permanent housing units, as well as the reconstruction and repair of 10 primary schools and 8 health centers through the implementation of this program (see Strategic Mission Plan 1999-2003).

It was likewise hoped that the models used would provide elements of policy, educational methods and practical experiences in the use of appropriate technologies, the use of local seismic-resistant that would facilitate greater local capacity to face and respond to natural disasters in the future.

In addition, USAID assistance emphasized the need to support the development of public / private alliances which would help to increase jobs and provide income opportunities for the base communities in relation to programs being undertaken by other donors in the region.

The Project was designed to be completed in a period of 24 months.

Later, on recommendation of PADCO in its Design and Strategic Activity Report (Phase 1, Task 2, March 31, 2000), the Program was adjusted to target the construction of 2,600 housing units or lots with services and two special projects, one for the education of street children and the other for the care of the elderly. At the same time, PADCO proposed the prioritization of the projects supported by civic organizations and NGOs which would include investment, research, innovative solutions, self-construction development or personal savings programs.

Results Achieved

In general, the Project achieved each and every one of the objectives fixed by the Mission, even exceeding the scope of the works proposed by PADCO in its Design and Strategy Report. The following are among the results attained:

- Construction of 2,867 housing units for 14,335 persons, approximately 24% of the most needy families, those paying rent for temporary accommodation or in self-built shelters.
- The design and introduction of a system for the rapid revision and environmental diagnosis of the reconstruction project, in accordance with the USAID and GOC regulations.
- Construction of the Pilot *Guadua* (large bamboo) Seismic Resistant Housing, applying the new standards established in the post-earthquake Construction Code
- Application of different building systems and the relative research, evaluation and improvement in technical and financial terms, which resulted in an improvement in the installed capacity of the participating NGOs.
- Construction of a home for 65 elderly persons and a school for 250 child street workers.
- A total of 467,000 direct day laborers and approximately 210,000 indirect day laborers were paid. This is equivalent to creating 1,200 direct and 570 indirect jobs for unskilled manual labor for one year.
- Productive alliances with 9 NGOs and strengthening of their technical, administrative and financial administration.
- Mobilization of counterpart resources equivalent to US\$6,100,000, that is, for each dollar invested by USAID, 0.72 cents were invested by counterparts.
- Generation of an official tax doctrine for the practical application of tax exemptions for the foreign donations established in Colombian Law.

Table 1 summarizes the general program and the characteristics of the 14 projects operated by nine NGOs. Annex No. 1 provides the technical, administrative and financial details of each project.

Housing Projects: Under the housing program, 12 projects with 2,867 housing units were built (i.e. 267 more than those fixed by the original program designed by PADCO and 1,867 more than those projected in the 1999 Strategic Mission Plan). Alliances were established with NGOs with recognized national and international experience, as well as some local NGOs with good development prospects for the future. The reconstruction process designed by the National government was supported and alliances were made with other donors to empower investment and carry out more and better works. In the majority of cases, the NGO operators worked with the communities, seeking to promote community processes and develop coexistence among the citizens.

Work was centered on environmental education processes, applying novel diagnosis guidelines and stimulating communities to embrace the environment as a means of protecting the surrounding environment. Throughout the implementation of the Project, stress was laid on the

need for the operators to prioritize the environmental care required for building developments in new territories.

A pilot project of 80 housing units designed by the Colombia Seismic Engineering Society was implemented, based on the use of *guadua* (large bamboo) using the cemented adobe technique. *Guadua* is a local vegetal material considered to have high seismic resistance qualities, and was used when all the villages of the region were originally built. It was subsequently replaced by more expensive materials in processes using different technologies, omitting any prior evaluation and development of local materials. Today, the use of cemented adobe has been accepted by the Colombian Seismic Resistance Code on the initiative of the Colombian Seismic Engineering Association, AIS, supported by a research proposal financed with money from USAID/OFDA and FOREC (Coffee Zone Reconstruction Fund) in other reconstruction projects.

The region is better prepared to support the onslaughts of natural disasters, its reconstruction took all seismic threats into account, as well as the vulnerability of the population. The maximum requirements of the Colombian Seismic Resistant Construction Code, NSF98, were complied with and the project was able to use the seismic maps made post-earthquake by several national institutions with resources contributed by the United States Government.

Special Projects: Two special projects were identified and built with USAID funds for groups of beneficiaries with particular needs. An initial education project for the poorest children of the region was built, as part of a program undertaken by the Quindío University which is now attended by over 250 children and has been named Pre-cooperative for the Care of Child Workers of Quindío Department.

Prior to the earthquake, this program had been under way within facilities of the University, that were badly affected by the earthquake. The facilities had to be demolished, leaving the group of children with no school to go to. The director of the program at the University presented a unsolicited proposal to PADCO, seeking financing, and it, among others, was selected.

The program covers approximately 250 minor street workers, providing them with formal education and training in different jobs, so that they will be able to face their own challenges in the future.

A second project was a building for the elderly, to replace a home for the elderly that had been seriously damaged by the earthquake. The reconstruction of the Anita Gutierrez Home, with the capacity for 65 elderly residents, both pensioned and on charity, was financed. It was necessary to demolish the previous old people's home, because it was not only in danger of collapsing, but also the location where it had been was declared a high risk zone.

PROGRAM FOCUS

Strategic Action Framework

The program was focused on the efficient, transparent application of the resources of the donation to achieve its specific objectives by means of actions to leverage and complement other reconstruction resources established by the authorities responsible for the process throughout the Coffee Zone. Three key strategic actions were considered essential:

1. To establish and implement a policy and operative programming for the coordination of the USAID and FOREC (Coffee Zone Reconstruction Fund) resources, so that they would be complementary rather than competitive.

Even though it was PADCO's exclusive responsibility to administer and disburse the USAID resources, three operative policies aimed at establishing a "virtual alliance" with FOREC were put into operation:

- Assisting FOREC in providing housing solutions to affected renter families who were living in the temporary emergency shelters, whose unit price was not in excess of the cost of one corresponding FOREC subsidy.¹
 - To make effective use of the "property shop window", or *vitrina inmobliaria*, set up by FOREC to identify and select projects for its housing reconstruction program, to select and support the development of projects to satisfy the needs and preferences of the target beneficiaries of USAID.
 - To assist FOREC and the other authorities responsible for reconstruction in identifying and solving generic problems in the process of its planning and implementation.
2. **To ensure the effective, efficient mobilization of the resources and capacity of the civic society organizations, and to strengthen their technical and administrative capacity through reconstruction processes.**

PADCO's action outlines for this purpose included:

- To prioritize the projects sponsored by organizations that include elements of investment by the sponsors, innovative solutions, self-help and/or personal savings efforts.
- To use these organizations to assist in the identification and classification of the potential beneficiaries, their guidance, training, and active participation in all aspects of the reconstruction.
- To use the same housing reconstruction process to demonstrate sustainable participation models, as partners, between the public and private sectors.
- To promote a synergic relationship with the activities of the other donors and government entities in the region, to achieve rapid, long lasting results.

¹ USAID support did not estimate an amount of over \$Col. 5,900,000, the original figure defined by FOREC as a State Subsidy. Nevertheless, and in view of the continuous devaluation of the \$Col., higher investment figures were achieved, resulting in an average of \$Col. 6,380,000 per housing unit and 267 additional units.

3. To ensure the most efficient, effective and transparent management of the funds donated by PADCO and the Operator NGOs in full compliance with the requirements of USAID for the use and administration of the same.

The firm of accountants, OGR y Asociados, was contracted by PADCO to advise it on the design, implementation and internal auditing of the operating system and financial administration of the resources according to the following guidelines:

- Definition of the Mandate Agreement as legal support for the actions and presence of PADCO in Colombia, without the necessity of opening branches or agencies with a local domicile.
- To establish a single banking system consisting of a single cash transfer network, with adequate internal controls and security to channel the resources of the donation; the implementation of a single accounting system and procedure to render accounts and the presentation of reports by all the Operator NGOs, thus facilitating localized control objectives in consolidated terms, in compliance with the Auditing standards required by USAID.
- To treat the donation resources as liabilities in the donation agreements between PADCO and NGOs, establishing the appropriate normal commercial requirements, including guarantee, insurance and other policies and establishing that such liability was paid or exhausted on handing over the housing units built to the beneficiaries.
- To provide technical assistance in support on the integral administration of the donation resources in all financial, fiscal and technical aspects.

4. To guarantee compliance with Municipal and Construction Regulations so that they would be appropriate to the post-disaster situation. In general, to ensure the construction of the projects while observing the technical standards and seeking a high level of quality.

A basic principle which PADCO required of the operators was to respect regulations in general as well as the establishment of internal control procedures to ensure quality.

- To ensure that no building projects were located in the zones identified as high risk, before they were approved by geographic identification of these on the risk maps.
- To require the operators to work entirely in accordance with the NSR-98 Standard (the Colombian Standard which establishes the design and construction requirements to guarantee adequate performance of the structure in case of seismic activity) and other regulations as a contractual commitment.
- To implement a system of collaborative Supervision, in which the Operator did not cease to be responsible for quality, but received technical assistance from the PADCO Supervisor to improve the quality of the construction works.
- To support, evaluate and promote research and the implementation of innovative solutions to enable the needs of the target groups to be satisfied. For example, building systems using local materials and renewable resources.

Implementation of Key Activities

Definition of Beneficiary Population: This was based on the Specific Donation Agreement, in which the target population of the project was defined as the poorest families who were renting accommodations in the Coffee Zone at the time of the earthquake. In order to implement that broad goal in functional terms, PADCO, with prior approval of USAID and together with the authorities in charge of the reconstruction, decided that the project would initially be targeted at *families affected by the earthquake who were living in the temporary shelters installed by the authorities at the time of the disaster and who were registered in the census of December 31, 1999, carried out by the Solidarity Network and the NGOs responsible for the reconstruction.*

The temporary nature of the post-earthquake emergency shelters (*cambuches*) was the most complex problem and constituted the most delicate point of the reconstruction process. When the project started, there was no program covering this population, located in public parks, schools, sports facilities under the temporary measures introduced by the authorities at the time of the disaster. These temporary settlements were threatening to become permanent.

Not all the poor tenant families affected by the earthquake were covered by this census. It covered a target population of 14,500 families, concentrated in the so-called temporary shelters, scattered in the different towns affected by the earthquake.

Many of these families did not go to the temporary shelters and were looking for a transient housing solution different from the temporary ones promised. Because they were scattered and because of the lack of a State policy to help them (a census sufficient to facilitate the control and location of the victims), many aid programs, including those of the Government of Colombia and international donors never reached such families.

The Program, as we mentioned above, initially only defined work with renter families included in the census of the shelters on December 31, 1999. A total of 2,300 families under this census were assisted, until the demand from this target group was exhausted, because it was covered by other housing subsidy programs set up by the Colombian Government some months after the USAID program began.

Some families identified in the census had still not been covered, basically due to inconsistencies arising from the aid qualification requirements established by the government authorities. Of these, some were classified as unqualifiable (for example, those who had received housing subsidies from the State on other occasions), while others could be qualified once the inconsistency was clarified or eliminated.

For this purpose, PADCO ASKED the National University of Colombia (responsible for managing the temporary shelters in the town of Armenia), the NGO Chamber of Commerce (responsible for dealing with the temporary shelters in the town of Calarcá and the District of Barcelona), and the NGO, Fundaempresa, (responsible for the temporary shelters in the other towns affected by the disaster in Quindío Department), to take on the task of eliminating the

inconsistencies which were affecting the families registered in the census in order to bring them into the USAID donation program. A total of 285 families were selected as qualified, including 30 families of national police officers that had been affected by the earthquake and were resident in temporary shelters.

During the final stages of the Program, and taking into account that the program still had housing units under construction that had yet not been adjudicated in the first target group definition (due to the factor mentioned above), PADCO decided to use beneficiary selection mechanisms different from those of the census of temporary shelters. These selection mechanisms were put forward for USAID consideration and approval.

The following mechanism was used to deal with applications for the housing subsidy under the program set up by the Family Compensation Funds of Colombia in response to the disaster. This program received more applications than it could deal with from families affected by the earthquake.

In this group, with over 2,000 registered families, there could be greater control over the transparency of the selection of beneficiary families.

Therefore, PADCO proposed an agreement for the donation of 172 housing units through the FOCAFE Fund, specifically for the families defined in the basic criteria of the Donation Agreement executed between the Government of the United States of America and that of Colombia, that is, families affected by the earthquake who were registered in the system as SISBEN 1 and 2 (workers' families earning one or two minimum wages registered in the National Health System).

The mechanisms approved by USAID always ensured that the beneficiary families had been in rented accommodation and were among the poorest groups of the population.

Definition of Operators and Projects: At the beginning, proposals to finance housing programs of social interest were received by the project, promoted by private housing groups or people's organizations. These were studied carefully and it was found that the people registered in the projects did not fulfill the requirements established to receive the donation and/or there was a clear political interest involved (Los Girasoles in Tebaida, Fumiemacaho in Montenegro).

In order to ensure transparency, the government authorities in charge of the reconstruction designed a mechanism called the Housing Shop Window (*Vitrina Inmobiliaria*). In this system, a national solicitation for the competitive offer of land, urbanized land and shelter solutions by private sector builders and developers was made. The solicitation covered all solutions to use all types and levels of funds available for the reconstruction, such as the individual housing subsidies established by the Government to help in dealing with the disaster,

Once such offers were qualified as suitable for different groups of affected families, exhibitions of the offered designs and models were organized throughout the region. The affected families were thus able to take an autonomous decision and choose their favored solution from a broad

range of options. As a definition, this mechanism was close to the economic theory of perfect competition, in which the buyers (the beneficiaries) had a large supply available to them and the sellers were aware of the buying power of their clients.

PADCO considered that the mechanism offered all the transparency guarantees because of the transparency of the competitive solicitation and the level of potential customers. Suffice it to say that more than 90 qualified projects resulted from this procedure and were presented to the beneficiaries for their consideration in a number of day long sessions.

The final selection of the projects could be made if the project reached an economic break even point defined by the authorities and the administrators of the Housing Shop Window, by agreement with the owner of the project and determined by the number of beneficiaries registered in each program or, which is the same thing, the number of housing units placed.

Some of them, on the initiative of the NGOs in charge of the reconstruction, were selected by PADCO to invest the United States Government donation. This was the case in the project undertaken by *Corporación Antioquia Presente* NGO at La Chica which would later become El Cantarito with 962 housing units, which sought to solve, at one stroke, the problem of the temporary housing in the municipality of Tebaida.

Others were presented directly to PADCO, as in the case of the Cántaro project of Mencoldes Foundation, with 124 housing units built on the basis of a community project developed on the same land as the temporary shelters. This program was led by the Menonite Christian Church of Colombia.

Vida y Futuro Foundation, one of the NGOs responsible for the reconstruction of the Coffee Zone, presented the Malaga and Pueblo Sol projects, for 206 and 32 housing units, respectively, for PADCO's consideration. In addition, in order to cover all the requirements of affected renter families in the city of Pereira, the NGO presented a project additional to those available in the Housing Shop Window, and El Recreo, with 162 housing units, was later developed.

Other projects were the result of initiatives in which some NGOs approached PADCO/USAID as a consequence of FOREC's call for the aid of all the NGOs. In response to this effort, the Quintas de los Andes project for 201 housing units was presented to PADCO for its consideration, by the Armenia Chamber of Commerce, based on a project put forward by a private builder in the Housing Shop Window..

The Cartago Diocesan Corporation and Carvajal Foundation each presented a project for PADCO's consideration: El Jubileo for 320 housing units and Cañas Gordas for 250 units. The Corporation based its proposal on an urban lot offered in the Housing Shop Window and the Foundation had used the city's housing supply.

Some proposals were not successful, such as the one presented by a group of single parent family mothers led by FUMIEMACAHU, an NGO with no experience in construction and with political roots. This project had to be rejected because it did not fulfill requirements of the program.

Likewise, another unsolicited project proposal which made considerable progress, to the point of being approved by USAID, had to be rejected because the beneficiaries did not fulfill the requirements of the program. This was called Granitos de Café in the town of Calarca, and led by the FUNCOP NGO. However, the program did evolve into another project, Plazuelas de la Villa, for 127 housing units, developed by a temporary association of Vivienda de Calarca Fund, the Calarca Society of Engineers and FUNCOP.

Lastly, as a result of the higher values in pesos available from the donation (resulting from the US\$/Col\$ exchange rate), the possibility arose of building a larger number of houses. A proposal was presented by FOREC (Coffee Zone Reconstruction Fund) for the use of some lots of land owned by it in the urban development of the Nueva Ciudad Milagro Pilot Project, which would be handed over as a counterpart of the program.

To develop these lots and in view of the advanced stage of the program, the proposal of Pontificia Bolivariana University of Medellin, presented through the Dean of the Faculty of Architecture, to develop a social interest housing design for progressive development was accepted. This initiative allowed the University to undertake the Vista Hermosa and Palmar projects, of 103 and 128 housing units, respectively.

Likewise, a proposal was made for the Cartago Diocesan Corporation, an NGO which was already completing the Jubileo project, showing excellent performance, to manage the construction of part of the project designed by Bolivariana University. This initiative resulted in the construction of the Our Lady of Peace project for 182 housing units.

Lastly, and on the basis of the same agreement between FOREC for the Nueva Ciudad Milagro Pilot Project, the proposal of AIS (Colombian Society of Seismic Engineering) for the construction of a group of 80 housing units in cemented adobe was accepted. This is a traditional building technique of the zone, using renewable vegetal materials native to the region, such as *guadua* (large bamboo). This technique had been recently included in the NSR98 Seismic Resistance code, on the initiative of AIS, following studies financed by USAID, and resulted in the Bambusa project, operated by the Armenia Chamber of Commerce, an NGO already successfully developing another of the donation projects.

Technical and Financial Administration: The model applied for the administration of the project eliminated the need for PADCO to legally establish itself as a company in Colombia, thereby allowing a rapid start to the project, dedicating all its efforts to its development.

The project defined its operating group under General Management led by Joseph Arington as Vice President of PADCO, Diego Marulanda as Local Project Manager, Juan Miguel Villamil as Technical Manager, Patricia Guevara as Accounts Secretary and a general assistant.

The legal framework for the contracting, under which the administrative model previously designed was put into practice, was basically a mandate agreement. Under it, the Local Project Manager acted under a proxy granted by PADCO Inc.

The mandate consisted of the development of the program. The mandate agreement was also the appropriate instrument for the development of the technical part by Engineer Villamil. The other officials, secretaries and general services, were taken on under an ordinary work contract, with the Local Manager acting as the employer.

An office was set up on the city of Armenia to serve as the project operations center. This was provided with all communications services and working supplies necessary to undertake the different tasks required by the program, including the national and local codes and legislation covering the project.

OGC, an accountancy and tax advisory company with its head office in Bogota, was contracted to provide such services, following a prior request for quotations from several lawyers specialized in fiscal matters with a presence in the region. This firm was responsible for the accounts control of the entire project, and for the definition of the fiscal management systems and procedures to meet requirements, in the light of the international agreements in force which covered the Specific Donation Agreement (see Annex: Accounts Procedures rendering reports drawn up by OGC and the memorandum on fiscal and tax aspects).

At contract startup, PADCO analyzed the banking system and the services available in the region in order to establish the outlines for the management of the donation funds. It was decided that Bancafé had the best banking coverage in the zone. Contact was made with the regional and national managers of the Bank and established special agreements for the handling of international/national transfers of the US\$ donation, and for the administration of the current accounts required for the management of each NGO project (See Annex with outlines of current account administration established by the NGOs for the development of the project and the handling of transfers from the donation).

A construction budget was defined based on an understanding with the authorities responsible for dealing with the disaster (FOREC), which pre-defined that the theoretical value offered for each housing unit donated per family could not exceed the housing subsidy provided by the Colombian Government in its programs. This amount, at the time of starting work, was Col\$5,900,000 or US\$ 3,026. This USAID policy served to avoid distortions that would undercut the Government's effort and also served to further consolidate a strong working partnership between PADCO and FOREC.

It was clear to the project that care had to be taken with budgets, taking into account the real fact of an inflationary economy and, therefore, the project worked with a Colombian Peso budget protected by expected devaluation.

In the final phase of the project, when the time to transfer the shelter solutions to beneficiary families, Attorney Luz Estella Garcia was retained as specialist adviser in title deeds and undertook to ensure that all the deeds were in accordance with the terms of the Specific Donation Agreement and that all the relevant procedures for the legal conveyance of the different properties were carried out.

Administrative Models: Regarding the way in which the projects were managed and the works were built, two clearly identified systems were accepted. The first model, which we shall call DIRECT IMPLEMENTATION, is a scheme which turns the operator into a builder, undertaking all the activities relating to the project, from the designs, land purchase and the actual construction of the urban development works and houses. In this case, the operator implemented a technical and administrative organization, which carried out the project and, therefore, assumed all the risks involved.

This first model also includes the community self-administration system used by the Carvajal Foundation in its project, in which the community is the main actor in the building process and the operator acts as its facilitator and trainer.

The second model, which we shall call FULLY SUBCONTRACTED, consists of issuing a tender in order to select the best bidder as the contractor, which fulfilled all the requirements. In this situation, the NGO operator took on the role of Project Manager and Superintendent, but did not get involved in the detailed planning process, nor made direct purchases. The operator would delegate the entire operative process of the construction to a private builder.

In addition, certain operators implemented projects in which the two systems were combined. For example, in the Jubileo Project, the Diocesan Corporation subcontracted the urban development works, but built the housing units as the direct builder. Similarly, for the El Recreo Project, the Vida y Futuro Foundation subcontracted the urban development works and carried out the construction of the houses by delegated administration. In this case, the operator was involved in the planning and project purchasing process, using the private builder for the strictly operative implementation.

In short, we can divide the program projects into the following classifications:

PROJECT/OPERATOR	MODEL USED	
	URBAN DEVELOPMENT	HOUSING UNITS
Cantarito	Direct Implementation	Direct Implementation
Fundación Anita Gutiérrez	Fully Subcontracted	Fully Subcontracted
Málaga	Fully Subcontracted	Fully Subcontracted
Pueblo Sol	Fully Subcontracted	Fully Subcontracted
El Recreo	Fully Subcontracted	Delegated Administration
Precooperativa Juvenil	Fully Subcontracted	Fully Subcontracted
Cántaro	Direct Implementation	Self-construction
Cañas gordas	Fully Subcontracted	Direct Implementation
Quintas de los Andes	Fully Subcontracted	Fully Subcontracted
Jubileo	Fully Subcontracted	Direct Implementation
Plazuelas de la Villa	Direct Implementation	Direct Implementation

Vista Hermosa / palmar	Counterpart contribution (*)	Direct Implementation
Nuestra Señora de la Paz	Counterpart contribution (*)	Direct Implementation
Bambusa	Counterpart contribution (*)	Fully Subcontracted

(*) Consisted of the counterpart contribution of 493 lots developed by FOREC to the donation program, with no major administrative burden for the operator.

No attempt will be made to rank each system in order to establish which was the best. In reality any system can be good and it is the conditions and willingness of the operator which permit maximization of the advantages of each one.

The *Direct Implementation Model*, has the theoretical economic advantage in its favor, in that there is no profit from the transaction involved. The NGO charges its administrative and operative costs and implements an organization suitable to undertake the work of planning, implementation and control required for the works.

The success of this model depends on the executive capacity of the organization in terms of organizing a human team in line with the demands of the size of the project and which has the specific experience in the type of work involved. Cases such as Antioquia Presente at El Cantarito and the Diocesan Corporation at Jubileo show that it is possible for a donation operator to be an excellent builder. However, the case of Mencoldes shows us that direct implementation is not a suitable model in all cases, in particular when the dimensions of the organization are below requirements and self-control processes are not implemented.

PADCO, by accepting the proposal of Pontificia Bolivariana University (UPB), considered the possibility of supporting the development of academic knowledge. They implemented a construction project, for the first time, with a team led by their Dean of Architecture, whose members were local professionals and graduates of the University. The result, from our point of view, shows the difficulties of academia in working with competitive operative costs and self-control processes. These elements resulted in a substantial budget deficit at the project's end, which was assumed as the responsibility of the UPB.

It is sufficient to compare the costs of the Nuestra Señora de la Paz project, built by the Diocesan Corporation and those of the El Palmar and Vista Hermosa projects built by UPB. There is a great difference, in spite of fact that all three of the projects were built on the basis of a common house design by UPB, which was built on urbanized lots of the same cost. The cost of the project built by the diocesan Corporation was 20% lower than the two projects built by the UPB. The high indirect cost of the Operation of the UPB projects, compared with that of the Diocesan Corporation, fully explains this result.

It is a commonplace to believe that public entities are synonymous with inefficiency and squandering. This was not the case in Plazuelas de la Villa, with 127 housing units. It was directly carried out by a temporary association led by the Calarca Social Housing Fund, which achieved not only transparency and the fulfillment of terms, but also achieved impeccable quality

in the houses and compliance with complex environmental commitments, such as closing down and transferring the rubbish dump alongside the lot where the project was built.

In the case of Subcontracting, the operative and risk burdens are delegated in their entirety to a private builder, who therefore includes profit in its costs. For that reason, this model would supposedly be the most expensive of all. However, this is not necessarily true as is shown when the costs of the USAID donation projects program are compared. Projects carried out directly by the operation turned out to be more expensive than the fully subcontracted projects.

Good initial negotiation, supported by excellent plans and tender documents is, from the economic and technical points of view, the best way to maximize the benefits of the system. With its Quintas de los Andes Project, the Armenia Chamber of Commerce provided an example that this system can produce excellent projects at low cost.

The same happened with the Malaga Project of the Vida y Futuro Foundation, in which the ample spaces and the quality of urban works and amenities, combined with very dignified houses are clearly outstanding.

The case of El Recreo Project is special, as the Vida y Futuro Foundation subcontracted all the urban development works, but carried out the construction of the housing units under the delegated administration system. In this case, the operator assumed control of the purchasing and contracting process and used the builder for operative implementation. In this way, the profit motive disappears and the builder is remunerated through the allocation of a percentage of the costs by way of fees.

The system proved to be efficient and produced economic savings which could be capitalized in favor of the project. This project was in fact a singular one in scope, in both its level of urban development and that of housing interiors, which were practically ready to continue progressive development in safe and economic conditions.

The two assistance projects, the Precooperativa and El Ancianato were undertaken using this system (Subcontracting), complying with all the goals and not encountering any problems.

Separate mention must be made of the model applied by the Carvajal Foundation in the construction of the Cañas Gordas project, *self-construction*. This is a model that is rich in community participation, leaving a community prepared for life in the development and aware of its responsibilities in progressive development.

As there was only one project that used this model in the program, we have no references for comparison. However, we can say that the system does not have lower costs; on the contrary, it tends to be among those of the highest unit cost. Although its social dividends are high, in this system the operator supports the greater burden of training and community management, and it is necessary to reinforce intervention in strictly technical aspects, as these tend to lose their importance.

Further analysis and detailed cost information for all of the projects is provided in the Second Annex, - "Analysis of Construction Costs".

Environmental Management: PADCO stressed that no building work should be commenced until an environmental evaluation, in accordance with USAID and Colombian Government regulations, has been carried out and approved by USAID.

USAID has clear, precise policies and procedures to ensure that the environmental consequences of activities financed by it are identified and that preventive security measures are adopted and included by its local partners before proceeding with their works (22 CFR 216.1 (b)(1)).

The Colombian Government has also established a complete system of environmental laws and regulations. In addition, a series of environmental guidelines were drawn up, specifying the standards and regulations to guide works of reconstruction and recovery of the environment in the area affected by the earthquake of January 25, 1999 (Coffee Zone).

To complement and implement the intention of these regulations within the context of the reconstruction program, PADCO prepared guidelines for the rapid environmental revision and diagnosis for the planning and implementation of the reconstruction works financed by the USAID donation (see Annex No. 2). The majority of the projects resulted, once an evaluation could be made, in positive environmental benefits. Nevertheless, some of the projects with a positive environmental evaluation caused undesired impacts. The early identification and description of these impacts helped PADCO and the NGOs to outline strategies designed to mitigate such impacts. Opportunities to improve the environmental conditions were also identified during this stage.

Based on the application of these guidelines, each NGO Operator included its mitigation strategies and also the opportunities for improvement of the environment in the basic reconstruction project, in ways that were technically and financially viable. This way of tackling the problem helped not only to satisfy basic USAID and Colombian Government environmental protection policy, but also to do so rapidly and effectively.

Divisibility: PADCO considered the possibility of dividing the program into a substantial number of smaller projects, thereby amplifying the visible impact of its intervention, but this would necessarily have made the administration of the project more complex. Fourteen (14) projects were finally implemented in the course of the 20 months' work, each one with its own designs and peculiarities.

In the first place, Urban Reform Law No. 388/97 came into force in 1999, obliging each municipality to have a Land Use Plan (POT) drawn up by itself, following a study by the environmental authorities and Town Councils. In the case of Armenia, for example, the POT was approved on the day before the earthquake and set out the possible development of the city, at high norms and standards, over a period of ten years. For some strange reason, the municipal authorities did not revoke this Land Use Plan to take into account a realistic reconstruction of their city.

Other municipalities damaged by the disaster did not have a POT, but drew one up, post-earthquake, in order to comply with legal requirements. However, the planners, who had the opportunity to establish realistic urban development bases, in line with reconstruction requirements, forgot to do so.

This decision weighed heavily on the development of the reconstruction projects in all the towns; the infrastructure development plans were not in harmony with the pace of the reconstruction and even less with the development zones. Theory and reality never met.

The POT required the development of zonal plans that broke the pace of the construction required in a city faced by disaster. UD Standards for urban land use and development were uniformly high and predicated on the construction of ideal cities and towns, thus increasing not only construction costs, but also of land. As a result of these measures, the percentage of use of urban lots for the actual construction of housing units, reached a only a maximum of 30% in the USAID Program Projects.

The result of this disparity in criteria which appeared in each POT, at each stage of implementation, the PADCO Team had to solve a problem with the different authorities, which involved either the Planning Department of each town or the environmental or political authorities. All of them, authorities and builders, were acting under new legislation, and each favored its own differing interpretation of each Article: the officials wanted to impose their authority and the builders to impose their haste to go ahead with reconstruction.

Since the work of the NGO operators could have been wasted in a sea of legalities and arguments with every public official, PADCO decided to carry out these coordination procedures directly, while the operators progressed in the construction of the projects. We attended close to 400 meetings with different authorities, NGOs and affected communities and reached agreements that served not only to untangle the USAID projects, but also those of many other donors and reconstruction entities..

CONCLUSIONS AND RECOMMENDATIONS

Experience gained from the Project: How should a reconstruction process be approached from the point of view of the donor? How should geographic interventions be targeted from the perspective of International Cooperation? How can donors' funds be put to the best use? How can completion of the project be reached without dying in the attempt? How can the mandate under the Specific Donation Agreements be performed?

All of the foregoing questions, and many others, are particularly relevant to the effective implementation of international assistance post-disaster.

When this situation arises we are usually in unknown territory where the legislation varies, customs are different, learning experiences are uncertain, technical capabilities are unknown and the social organizations involved represent a question mark. It is difficult to recognize the

political forces and their powers, - political interests are intertwined. In the majority of cases, and without wishing to, we found ourselves in the crossfire and, worse still, information was normally non-existent or in chaos, which limits its reliability.

At first glance, it could be said that building 2,600 housing units should not be difficult so long as the money is available. However, one must first consider the potential power or threat that this represents for any politician, - in terms of influencing beneficiary targets of the donation, or indeed, the impact of a reconstruction project such as this on the value of the land. . A poorly conceived approach to the land market can wreak havoc with budgets and impact in some way on local economic factors. (See Costs Analysis regarding land prices in Armenia).

All the difficulties one can think of are bound to occur in a project of this nature. and it is therefore vital to overcome them on a timely basis within the relevant context.

In order to successfully undertake a project of the magnitude of the one carried out with the USAID donation, its administrative, financial and technical policies, systems and procedures must be clearly defined and publicized from the outset so that local special and vested interest groups will not be able to substantially alter the direction already fixed for their own purposes or gain..

Our experience throughout this work has reminded us of the maxim that can be summarized as follows: "anything you don't define will be defined for you" or " anything not designed in a project will be designed for you".

It could be said that, with one exception which was controlled, the project was free from political pressures. However, it should be clarified that, in one way or another, by the time there was public knowledge of the program, it had already reached a high level of definition and it was impossible for these forces to attempt to influence its direction.

In addition, it could be thought that a series of micro-projects, such as those implemented in the program, should first have been placed under clear emergency legislation to expedite their implementation. As we said before, this is not always possible..

For example, reconstruction following disasters is not always undertaken in the same sites or place. It was clear in the reconstruction process of the Coffee Zone that the reconstruction and recovery was, in most cases, located on the outskirts of the affected towns.

Not only did the new urban legislation (POT) complicate the process, but also the experience of the professional builders of the region was conditioned to working in built up areas, with infrastructure already available and established urban outlines.

The occupation of new territories was a challenge for the builders and it had to be closely monitored, both to ensure that suitable land was identified and developed under the best possible environmental conditions, and that the urban development and building designs considered the broader impacts of each project on the surrounding areas..

NGOs in Colombia are at different levels of development. Organizations with very different profiles and capabilities entered the Coffee Zone. Some of them, such as the Carvajal Foundation and Cartago Diocesan Corporation contributed their long, recognized experience in carrying out social programs involving the construction of housing.

Some local organizations were created or adapted and very rapidly succeeded in attaining management and working capabilities that were equal or superior to others of longer standing and prestige. This was the case of the Vida y Futuro Foundation in Pereira and the Armenia Chamber of Commerce.

PADCO, following the mandate of the Specific Donation Agreement, used several of them and, in general, the results were good. It may be said that experience showed us that it is easier to operate from a local or regional organization, if there is one, than simply to bring in organization from other regions backed by their prestige.

In some cases, there had been no experience in developing housing programs, as in the cases of Vida y Futuro, Armenia Chamber of Commerce and Pontificia Bolivariana University. In others, such as Antioquia Presente Corporation, the scale exceeded their prior experience. There were also new experiences - Plazuelas de la Villa Temporary Association - in which the Calarca Society of Engineers, the Calarca Housing Fund (a public entity of the same town) and FUNCOP, a community organization with experience in disaster management, all joined together.

Today, the great majority of these organizations are capable of participating in construction programs under favorable conditions.

Most often, pressure to show progress led to the initiation of projects while there was still a considerable lack of full definitions. Clearly, the level of specificity solution of the project plans and specifications and, in general and the accuracy of its general objectives minimized unforeseen situations, facilitated operations and brought us closer to the possibility of project budgets and schedules.

Based on the different capabilities of the operators, it proved right, from the organizational and strategic points of view, to have established a permanent presence in the field, as PADCO did. This enabled us to have a continuous exchange of experiences and to solve the vast majority of the problems, which were not exclusively technical, in each and every one of the projects.

Reconstruction process are fertile ground for dreams and one must always take advantage of opportunities: some concentrate on the ideal city, others on the deal or project of a lifetime, and each one will try to make his or her dream come true, if he or she is able to do so.

Mobility in the jobs of the public officials responsible for compliance with the regulations prevents them, in most cases, from having in depth knowledge of the relevant legislation that is essential to their position, and its efficient and equitable operation. . In general, however, they legislate on the basis of their own knowledge from their small redoubts of power.

In order to resolve problems of regulations with public officials, it is important to have the certainty, based on knowledge and facts, and to have the document in question at hand. Only in this manner can one hope to avoid the mistaken interpretations that result from learning acquired from frequent verbal communications between such officials. This method avoids unnecessary expenses and saves precious time.

There are two types of timing in projects of this nature: controllable and non-controllable. The first type is that of the development of works, such as designs, soil studies, contracting, construction, etc. The second type involves the formalities and bureaucracy, the latter being in the hands and at the pace which each bureaucrat tries to imprint on his or her work. Unfortunately, this latter type conditions the development of the former (construction licenses, connection permits, environmental licenses, etc.) and it was from these timing discrepancies that the necessity to grant extensions for the implementation of the contractual terms of the agreement arose.

The Donation Agreements executed between countries usually bring with them a series of exceptional mechanisms for the application of the programs, which are certainly conceptually valid, but nevertheless cause difficulties during implementation.

In general, a document signed in a Foreign Relations Ministry office does not permeate into other public administration offices. The most important case to highlight is that of total exemption from taxes, rates or contributions granted between countries. As PADCO tried to enforce such contractual concessions, the tax officials had all sorts of interpretations of their own and issued many opinions denying acceptance of the agreements, which, in practice, made them impossible to apply.

In Colombia, charging obligatory, automatic taxes on transactions, such as VAT, has for many years been part of commercial culture. For both NGO operators and for PADCO, it became difficult, if not impossible, to get materials suppliers accept the tax clause of the Agreement. On a number of occasions, suppliers refused not to invoice VAT, on the basis of erroneous opinions issued by the DIAN legal department.

The international auditors would check the payments of VAT and declared them non-eligible expenditures, unaware of the inability of an operator in the field to exert any influence on the fiscal policies of the country. Agreements of this kind should therefore be accompanied by the documentation required for effective implementation by the donor and/or his contractors.

It is, definitively, easier to obtain a commitment from DIAN prior to the signature of a donation agreement between countries than to wait until the project is under way.

Recommendations for the Future

1. Establish Effective Operational Coordination of Policies and Programming.

Even though USAID resources are administered independently, to maximize the effective use of scarce resources, we recommend that the following be taken into account;

- Planning and implementing operative policy and programming for coordinating USAID resources in a complementary and not a competitive manner with those of other programs and donors, in order to cover the priority target groups and to make effective use of the mechanisms and project identification sources.
- To collaborate, empower and reach agreements with the responsible authorities and other donors related to the identification and solution of problems inherent in planning and implementation in reconstruction processes.

2. Maximize the Effective Mobilization and Use of Civic Society Organizations.

We ratify the effectiveness of the outlines applied, with emphasis on the mobilization and strengthening of local resources, among others, those of local institutions and NGOs, as well as:

- Prioritizing projects sponsored by organizations that include elements of investment by the sponsors, innovative solutions, self-help and/or personal efforts.
- Using these organizations to help in the identification and classification of potential beneficiaries - their guidance, training and active participation in all the aspects of reconstruction.
- Using the same housing reconstruction process to demonstrate sustainable participation models, as partners, between the public and private sectors.
- Promoting a synergic relationship with the activities of the other donors and governmental entities of the region to obtain rapid, lasting results.

3. Provide mechanisms to guarantee administrative, financial and technical effectiveness and transparency.

- Perfect the Mandate agreement model as the most appropriate instrument for the International Cooperation Agencies to avoid the establishment of costly and unnecessary bureaucracy.
- Ensure that money is channeled through a single banking network limited to the resources of the donation, and with special current accounts, signed between Operators and the Bank, as the exclusive receivers of transfers ordered by the Agency. These contracts should include control obligations clauses to be complied with by both operators and the banking entity.
- The single accounting model established for the management of the accounts and for reports to be rendered facilitated financial control and audit and led to key conclusions, although it was not sufficiently automatic. Had it been so, the use of this instrument for control would have been maximized.
- From the point of view of taxes and contributions, it is vital that officials representing the State sensitize, at all levels, the commitments assumed by them

before other governments; in this way, tax collection officials in the beneficiary country could act in accordance with the respective agreement, thus avoiding long and costly procedures for the agreements to be performed.

4. Guarantee compliance with the Municipal and Construction Regulations, seeking their adjustment to the post-disaster situation and, in general, respecting technical standards and ensuring a high level of quality.

It is important not to forget that dealing with disasters requires legislation, instruments and processes facilitating the response to emergencies in their entire context and with the required rapidity.

- Local authorities should be involved from the start in the development of the corresponding instruments.
 - Ensure the implementation of projects outside the zones detected as high risk prior to their approval, by thorough geographical risk identification according to the risk map.
 - Require operators to adhere entirely to the post-disaster regulations framework, with greatest emphasis on the preventive regulations covering the catastrophe.
 - Mobilize and use potentially available local technical resources (Communities, Professionals, Universities, Activity Sectors) to improve follow-up of the quality of the products, providing them with guidance on the different nature, objectives and characteristics of the Operators, thus reinforcing their capabilities towards the future.
5. Continue supporting research and development of non-traditional building systems that represent benefits in terms of costs, thus achieving considerable progress in optimizing use of local resources.

The USAID Mission in Colombia has been a leader in the financing of risk mitigation work, by financing studies such as seismic risk micro-zoning for certain towns in the Coffee Zone and in the development and regulation of low cost, seismic resistant building techniques, such as cemented adobe. On the basis of the successful experience with this system in the Bambusa project, we recommend that the USAID Mission:

- Extend the experience of Bambusa, promoting its use as a safe and economical material for the construction of social housing, seismic resistant housing units for target groups such as the displaced.
- Contract typical designs and specifications for minimum housing in cemented adobe, making them known and promoting their use by entities relating to the general social interest housing system.
- Finance housing programs using cemented adobe to respond to the needs of Plan Colombia.